



DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 21-42]

Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, Department of Defense (DoD).

ACTION: Arms sales notice.

SUMMARY: The DoD is publishing the unclassified text of an arms sales notification.

FOR FURTHER INFORMATION CONTACT: Neil Hedlund at neil.g.hedlund.civ@mail.mil
or (703) 697-9214.

SUPPLEMENTARY INFORMATION: This 36(b)(1) arms sales notification is published to
fulfill the requirements of section 155 of Public Law 104-164 dated July 21, 1996. The following is
a copy of a letter to the Speaker of the House of Representatives, Transmittal 21-42 with attached
Policy Justification and Sensitivity of Technology.

Dated: February 9, 2023.

Aaron T. Siegel,

*Alternate OSD Federal Register Liaison Officer,
Department of Defense.*



DEFENSE SECURITY COOPERATION AGENCY
201 12TH STREET SOUTH, SUITE 101
ARLINGTON, VA 22202-5408

June 3, 2021

The Honorable Nancy Pelosi
Speaker of the House
U.S. House of Representatives
H-209, The Capitol
Washington, DC 20515

Dear Madam Speaker:

Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 21-42, concerning the Army's proposed Letter(s) of Offer and Acceptance to the Government of Australia for defense articles and services estimated to cost \$3.5 billion. After this letter is delivered to your office, we plan to issue a news release to notify the public of this proposed sale.

Sincerely,

A handwritten signature in black ink, reading "Heidi H. Grant", is positioned above the printed name and title.

Heidi H. Grant
Director

Enclosures:

1. Transmittal
2. Policy Justification
3. Sensitivity of Technology

Notice of Proposed Issuance of Letter of Offer
Pursuant to Section 36(b)(1)
of the Arms Export Control Act, as amended

(i) Prospective Purchaser: Government of Australia

(ii) Total Estimated Value:

Major Defense Equipment*	\$2.5 billion
Other	<u>\$1.0 billion</u>
TOTAL	\$3.5 billion

(iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase:

Major Defense Equipment (MDE):

Twenty-nine (29) AH-64E Apache Attack Helicopters
Sixty-four (64) T700-GE 701D Engines (58 installed, 6 spares)
Twenty-nine (29) AN/ASQ-170 Modernized Target Acquisition and Designation
Sight/AN/AAR-11 Modernized Pilot Night Vision Sensors (M-TADS/PNVS)
Sixteen (16) AN/APG-78 Fire Control Radars (FCR) with Radar Electronic Units
Twenty-nine (29) AN/APR-48B Modernized Radar Frequency Interferometers
(MRFI)
Seventy (70) Embedded Global Positioning Systems with Inertial Navigation
Systems plus Multi-Mode Receiver (EGI+MMR) (58 installed, 12 spares)
Thirty-five (35) AAR-57 Common Missile Warning Systems (CMWS) (29
installed, 6 spares)
Seventy (70) AN/ARC-231A Very High Frequency/Ultra High Frequency
(VHF/UHF) Radios (58 installed, 12 spares)
Eighty-five (85) AGM-114R Hellfire Missiles
Twenty-nine (29) M36E8 Hellfire Captive Air Training Missiles (CATM)
Two thousand (2,000) Advanced Precision Kill Weapon System Guidance
Sections (APKWS-GS)

Non-MDE:

Also included are AN/APR-39 Radar Signal Detecting Sets; AN/AVR-2B Laser
Detecting Sets; AN/APX-123A Identification Friend or Foe (IFF) transponders;
IDM-401 Improved Data Modems; Link-16 Small Tactical Terminal KOR-24-A;
Improved Countermeasure Dispensing System (ICMD); AN/ARN-149 (V)3
Automatic Direction Finders; Doppler ASN-157 Doppler Radar Velocity Sensors;
AN/APN-209 Radar Altimeters Common Core (RACC); AN/ARN-153 Tactical
Air Navigation Set (TACAN); AN/PYQ-10(C) Simple Key Loader; M230E1 +
M139 AWS Automatic Gun; M261 Rocket Launchers; M299 missile launchers;
2.75 inch rockets; 30mm rounds; High Explosive Warhead for airborne 2.75
rockets, inert; MK66-4 2.75 inch rocket High Explosive warhead M151 fuze
M423 motor; MK66-4 2.75 inch rocket warhead M274 motor; MK66-4 2.75 inch
rocket motor; M151HE 2.75 inch warhead; Manned-Unmanned Teaming-2
(MUMT-X) video receivers; Manned-Unmanned Teaming-2 (MUMT-X) Air-Air-
Ground kits; training devices; communication systems; helmets; simulators;
generators; transportation and organization equipment; spare and repair parts;
support equipment; tools and test equipment; technical data and publications;

personnel training and training equipment; U.S. Government and contractor technical assistance; technical and logistics support services; and other related elements of program and logistical support.

(iv) Military Department: Army (AU-B-ULV)

(v) Prior Related Cases, if any: None

(vi) Sales Commission, Fee, etc., Paid, Offered, or Agreed to be Paid: None

(vii) Sensitivity of Technology Contained in the Defense Article or Defense Services Proposed to be Sold: See Attached Annex

(viii) Date Report Delivered to Congress: **June 3, 2021**

*As defined in Section 47(6) of the Arms Export Control Act.

POLICY JUSTIFICATION

Australia – AH-64E Apache Helicopters

The Government of Australia has requested to buy twenty-nine (29) AH-64E Apache attack helicopters; sixty-four (64) T700-GE 701D engines (58 installed, 6 spares); twenty-nine (29) AN/ASQ-170 Modernized Target Acquisition and Designation Sight/AN/AAR-11 Modernized Pilot Night Vision Sensors (M-TADS/PNVIS); sixteen (16) AN/APG-78 Fire Control Radars (FCR) with Radar Electronic Units; twenty-nine (29) AN/APR-48B Modernized Radar Frequency Interferometers (MRFI); seventy (70) Embedded Global Positioning Systems with Inertial Navigation Systems plus Multi-Mode Receiver (EGI+MMR) (58 installed, 12 spares); thirty-five (35) AAR-57 Common Missile Warning Systems (CMWS) (29 installed, 6 spares); seventy (70) AN/ARC-231A Very High Frequency/Ultra High Frequency (VHF/UHF) radios (58 installed, 12 spares); eighty-five (85) AGM-114R Hellfire missiles; twenty-nine (29) M36E8 Hellfire Captive Air Training Missiles (CATM); and two thousand (2,000) Advanced Precision Kill Weapon System Guidance Sections (APKWS-GS). Also included are AN/APR-39 Radar Signal Detecting Sets; AN/AVR-2B Laser Detecting Sets; AN/APX-123A Identification Friend or Foe (IFF) transponders; IDM-401 Improved Data Modems; Link-16 Small Tactical Terminal KOR-24-A; Improved Countermeasure Dispensing System (ICMD); AN/ARN-149 (V)3 Automatic Direction Finders; Doppler ASN-157 Doppler Radar Velocity Sensors; AN/APN-209 Radar Altimeters Common Core (RACC); AN/ARN-153 Tactical Air Navigation Set (TACAN); AN/PYQ-10(C) Simple Key Loader; M230E1 + M139 AWS Automatic Gun; M261 Rocket Launchers; M299 missile launchers; 2.75 inch rockets; 30mm rounds; High Explosive Warhead for airborne 2.75 rockets, inert; MK66-4 2.75 inch rocket High Explosive warhead M151 fuze M423 motor; MK66-4 2.75 inch rocket warhead M274 motor; MK66-4 2.75 inch rocket motor; M151HE 2.75 inch warhead; Manned-Unmanned Teaming-2 (MUMT-X) video receivers; Manned-Unmanned Teaming-2 (MUMT-X) Air-Air-Ground kits; training devices; communication systems; helmets; simulators; generators; transportation and organization equipment; spare and repair parts; support equipment; tools and test equipment; technical data and publications; personnel training and training equipment; U.S. Government and contractor technical assistance; technical and logistics support services; and other related elements of program and logistical support. The total estimated value is \$3.5 billion.

The proposed sale will improve Australia's capability to meet current and future threats, and will enhance interoperability with U.S. forces and other allied forces. Australia will use the enhanced capability to strengthen its homeland defense and provide greater security for its critical infrastructure. Australia will have no difficulty absorbing these Apache aircraft into its armed forces.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

The prime contractors involved in this program will be Boeing, Mesa, AZ; and Lockheed Martin, Orlando, FL. The purchaser typically requests offsets. Any offset agreement will be defined in negotiations between the purchaser and the contractor(s).

Implementation of this proposed sale will require the assignment of eight (8) contractor representatives to Australia.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

Notice of Proposed Issuance of Letter of Offer
Pursuant to Section 36(b)(1)
of the Arms Export Control Act

Annex
Item No. vii

(vii) Sensitivity of Technology:

1. The AH-64E Apache Attack Helicopter is the Army's advanced attack helicopter equipped for performing close air support, anti-armor, and armed reconnaissance missions. The aircraft contains the following sensitive communications and target identification equipment, navigation equipment, aircraft survivability equipment, displays, and sensors:

a. The AN/ARC-231 Ultra High Frequency (UHF) radio is a software defined radio for military aircraft that provides two-way multi-mode voice and data communications. It provides joint service standard line of sight (LOS), HAVE QUICK, SATURN, and SINCGARS electronic counter-counter measures (ECCM), along with integrated waveform satellite communications (SATCOM).

b. The AN/APX-123A Identify Friend-or-Foe (IFF) digital transponder set provides pertinent platform information in response to an IFF interrogator. The digital transponder provides cooperative Mark XII IFF capability using full diversity selection, as well as Mode Select (Mode S) capability. In addition, transponder operation provides interface capability with the aircraft's Traffic Collision and Avoidance System (TCAS). The transponder receives pulsed radio frequency interrogation signals in any of six modes (1, 2, 3/A, S, and 5), decodes the signals, and transmits a pulse-coded reply. The Mark XII IFF operation includes Selective Identification Feature (SIF) Modes 1, 2, 3/A and C, as well as secure cryptographic Mode 5 operational capability.

c. Link 16 Datalink is a military tactical data link network. Link 16 provides aircrews with enhanced situational awareness and the ability to exchange target information to Command and Control (C2) assets via Tactical Digital Information Link-Joint (TADIL-J). Link 16 can provide a range of combat information in near-real time to U.S. and allies' combat aircraft and C2 centers. The AH-64E uses the Harris Small Tactical Terminal (SIT) KOR-24A to provide Airborne and Maritime/Fixed Station (AMF) Small Airborne Link 16 Terminal (SALT) capability. The SIT is the latest generation of small, two-channel, Link 16 and VHF/UHF radio terminals. While in flight, the SIT provides simultaneous communication, voice or data, on two key waveforms.

d. The AN/APR-39 Radar Warning Receiver Signal Detecting Set is a system that provides warning of a radar directed air defense threat and allows appropriate countermeasures. This is the 1553 databus compatible configuration.

e. The AN/AVR-2B Laser Warning Set is a passive laser warning system that receives, processes and displays threat information resulting from aircraft illumination by lasers on the aircraft's multi-functional display.

f. The AAR-57 Common Missile Warning System (CMWS) detects energy emitted by threat missile in-flight, evaluates potential false alarm emitters in the environment, declares validity of

threat and selects appropriate counter-measures for defeat. The CMWS consists of an Electronic Control Unit (ECU), Electro-Optic Missile Sensors (EOMSs), and Sequencer and Improved Countermeasures Dispenser (ICMD).

g. The AH-64E uses two EAGLE+MMR embedded GPS/Inertial navigation systems with Multi-Mode Receiver. The EAGLE+MMR is a self-contained, all-attitude navigation system with embedded GPS receiver, controlled via MIL-STD-1553B controller, providing output navigation and GPS timing data to support ADS-B out and other platform systems. The EAGLE's EGI unit houses a 24 channel GPS receiver which is capable of operating in either Standard Positioning Service (SPS) C/A-code (non-encrypted) or Precise Positioning Service (PPS) Y-code (encrypted). The Eagle + MMR is pending aircraft testing and air worthiness rating (AWR) approval, with flight tests anticipated to start in April 2021. AWR approval is expected prior to the proposed sale to Australia.

h. The AN/ASQ-170 Modernized Target Acquisition and Designation Sight/AN/AAQ-11 Pilot Night Vision Sensor (MTADS/PNVS) provides day, night, limited adverse weather target information, as well as night navigation capabilities. The PNVS provides thermal imaging that permits nap-of-the-earth flight to, from, and within the battle area, while TADS provides the co-pilot gunner with search, detection, recognition, and designation by means of Direct View Optics (DVO), television, and Forward Looking Infrared (FLIR) sighting systems that may be used singularly or in combinations.

i. The AN/APR-48B Modernized Radar Frequency Interferometer (M-RFI) is an updated version of the passive radar detection and direction finding system. It utilizes a detachable UDM on the M-RFI processor, which contains the Radar Frequency (RF) threat library.

j. The AN/APG-78 Longbow Fire Control Radar (FCR) with Radar Electronics Unit (REU) is an active, low-probability of intercept, millimeter wave radar. The active radar is combined with a passive Radar Frequency Interferometer (RFI) mounted on top of the helicopter mast. The FCR Ground Targeting Mode detects, locates, classifies and prioritizes stationary or moving armored vehicles, tanks and mobile air defense systems as well as hovering helicopters, helicopters, and fixed wing aircraft in normal flight. If desired, the radar data can be used to refer targets to the regular electro-optical Modernized Target Acquisition and Designation Sight (MTADS).

k. The Manned-Unmanned Teaming X (MUM-Tx) data link system provides cross-platform communication and teaming between Apache, unmanned aerial systems (UAS), and other interoperable aircraft and ground platforms. It provides the ability to display real-time UAS sensor information and MTADS full motion video feeds across MUM-T equipped platforms and ground stations.

l. The M299 Missile Launcher, commonly known as the Longbow Hellfire Launcher (LBHL), is a four rail launcher designed to carry the complete family of AGM-114 Hellfire missiles.

m. The AGM-114R Hellfire is a semi-active laser guided missile with a multi-purpose warhead that can engage and defeat both high and heavily armored targets, personnel, bunkers, caves and urban structures.

n. The Hellfire M36E9 Captive Air Training Missile (CATM) is a flight-training missile that consists of a functional guidance section coupled to an inert missile bus. It functions like a tactical missile during captive carry on the aircraft, absent launch capability, making it suitable for training the aircrew in simulated Hellfire missile target acquisition and lock.

o. The M261 2.75 Inch Rocket Launcher is a nineteen tube, three zone rocket launcher utilized on heavy attack aircraft. It is used to fire the Hydra 70 2.75 inch rocket, an unguided, fin-stabilized air-to-ground rocket that utilizes a variety of warhead and fuze combinations to achieve a range of effects.

p. The AGR-20A Advanced Precision Kill Weapons System (APWKS) is a conversion of the 2.75 inch Hydra 70 rocket which adds a laser guidance kit to enable precision targeting.

2. The highest level of classification of defense articles, components, and services included in this potential sale is SECRET.

3. If a technologically advanced adversary were to obtain knowledge of the specific hardware and software elements, the information could be used to develop countermeasures that might reduce weapon system effectiveness or be used in the development of a system with similar or advanced capabilities.

4. A determination has been made that the Government of Australia can provide substantially the same degree of protection for the sensitive technology being released as the U.S. Government. This sale is necessary in furtherance of the U.S. foreign policy and national security objectives outlined in the Policy Justification.

5. All defense articles and services listed in this transmittal are authorized for release and export to the Government of Australia.

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